12.4 Special Interest Groups

FRIENDS OF THE RIVER

Comments on the Draft American River Watershed Long Term Study

October 29, 2001

Col. Conrad
District Engineer
Sacramento District
1325 J Street, 13th Floor
Sacramento, CA 95814

Col. Conrad,

General Remarks

Friends of the River has closely followed American River flood control planning efforts for the last two decades and we are pleased to offer the following comments.

Friends of the River is supportive of the kind of combined flood control/river restoration project outlined in Alternative 3 and the restoration project chapter in the draft American River Watershed Long Term Study Report. We believe that such a project will emerge as the locally preferred alternative. FOR-1

Assuming that construction related and reservoir inundation mitigation issues are resolved, Friends of the River concludes that the "dry" seven foot dam raise outlined in Alternative 3 is unlikely to have any major negative impacts on important natural resources in the American River Basin. FOR-2

The kinds of restoration projects outlined in Study Report (and those that we believe that may be identified in the final Report) are appropriate and warranted projects — given the long history of Federal, State, and local water resources projects that have damaged environmental resources in the American River Basin. FOR-3

Forecast Based Operations

We welcome the commitment in the Study Report recognizing the Corps authority and intent to adopt forecast operations in the Folsom Reservoir Regulation Manual as the physical improvements authorized in the 1996 and 1999 WRDAs are implemented. We feel confident that such operations can not only improve the flood control capacity of the authorized American River flood control system, but can help reduce conflicts with other purposes of Folsom Dam. We look forward to working with your staff on revising these rules. FOR-4 (Cont.)

Restoration Projects

It is our understanding that the local sponsors of the proposed project intend to recommend a subset of the restoration projects outlined in the Study Report. We expect that the local sponsors (the Sacramento Area Flood Control Agency [SAFCA] and the Reclamation Board) will exercise good judgement in identifying the restoration projects that are beneficial and will be ready to proceed with this project. FOR-5

We are encouraging the Project to consider some kind of mitigation/restoration projects upstream of Folsom Dam as well. The brief inundations associated with the expanded flood pool may have subtle to perhaps noteworthy impacts on terrestrial resources around Folsom Reservoir. The operation of the existing reservoir has had undeniable impacts to terrestrial resources beneath the reservoir. These matters were discussed at the public hearing on October 24, and we believe that the Project should investigate and develop mitigation/restoration projects with affected parties and local governments in the area. FOR-6

Specific Comments

Design Floods

We understand that standard Corps project and economic analysis requires that project performance be described using annual flood risk methodologies. However given the lack of stability in the relationship of the size of unregulated flow estimates and the modeled frequency of these flows (let alone the annual flood risk and r&u reliability indices), it would be helpful to decision makers if the Final Study Report also portrays the size of Design events in terms of peak flows and volumes (in cfs or mean cfs/time) of the storm hydrograph used to model project performance.[1] We would be happy to work with your staff in helping to define the parameters of FOR-7

[1] These kinds of project performance description issues are not new to the Sacramento District. In a related issue concerning the Corps of Engineers' "Risk and Uncertainty Reliability Indices," the National Research Council's Committee on Flood Risk Management in the American River Basin stated:

> The "reliability of the system for a given inflow" is both simpler and more meaningful than the "reliability of the system for a given exceedance probability including our inability to determine the flow actually associated with the exceedance probability."
>
> This makes it hard to anchor the [Corps] analysis mentally or to know for certain to what it is applied. ...Use of critical historic flood events with known flood flow peaks would help to resolve this conceptual vagueness.

Flood Risk Management and the American River Basin, An Evaluation, Committee on Flood Control

Design events.

Project Need

Pages S-2 and 1-1 describe the project as needed or that the authorized (but still unconstructed) flood control system does not provide an adequate level of protection for the City of Sacramento. It is clear that the Study Report NED analysis portrays a number of Study Report projects as cost effective. It is clear that Sacramento desires a lower modeled annual flood risk and that a number of other floodplain communities enjoy a lower modeled annual flood risk. It is clear that Alternative 3 and other flood damage reduction projects would increase the margin of safety in the capacity of the City's flood control system. However, there is no evidence that flood flows close to the design flood of Alternative 3 will ever occur – given that they have not occurred historically. The Study Report should be careful to not confuse its ability to mathematically assign frequencies to events that have never occurred with its ability to gauge whether such events are actually going to occur.[2] Coupled with design flood data, it might be helpful for the Report to display the size (discharge) of recorded, historic, and paleoflood events in the basin. FOR-8

Need, 1.1.2

The Study Report notes that 1986 "[o]utflows from Folsom Dam, together with high flows in the Sacramento River, caused the river stage to rise above the design freeboard, or safety margin, of levees protecting the city of Sacramento." The Study Report should also note that 1986 flood control operations departed significantly from those prescribed in the reservoir regulation manual and that no encroachment into reservoir surcharge or design levee stage would have been necessary if flood control operations had more closely complied with the manual.[3] FOR-9

Impacts of a Conservation Storage Raise

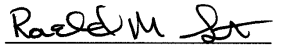
We strongly concur that the Study Report does not examine the impacts to Dam stability and to environmental & recreation resources. We have well developed views on the significant adverse impacts on the South Fork of the American River and the Confluence Parkway of the North Fork of the American River of raising the gross pool of Folsom Dam but they are not relevant to the current proposal. However, we will strongly oppose any action to authorize such a raise on the basis of this Study Report. FOR-10

Alternatives in the American River Basin, Water Science and Technology Board, Natural Research Council, National Academy Press, 1995, pp. 153-156.

[2] A lack of careful presentation can confuse area decision makers. "[The Dam raise 'is still not protection against [a possible unprecedented flood] that experts say will devastate Sacramento,' said David Lopez, [Rep.] Doolittle's Chief of Staff." *Sacramento Bee*, September 19, 2000.

[3] *Flood Risk Management and the American River Basin, An Evaluation,* National Academy Press, 1995, pp. 44-49.

Sincerely yours,



Ronald M. Stork
Friends of the River Conservation Staff
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F.O.R. Comments on the Draft American River Watershed Long Term Study October 29, 2001

12.4.1 FOR – Friends of the River, Ronald M. Stork (October 29, 2001)

Response to Comment FOR-1

The Corps recognizes the support of Friends of the River for Alternative 3 of the flood control project and the river restoration projects.

Response to Comment FOR-2

The environmental impact analysis disclosed in Chapter 7.0 of the Draft SPFR/EIS/EIR concluded that construction and operation of Alternative 3 would not result in substantial effects on resources within the American River Basin.

Response to Comment FOR-3

The Corps acknowledges the support for the environmental restoration alternatives evaluated in the Draft SPFR/EIS/EIR.

Response to Comment FOR-4

The Corps acknowledges the support for forecast-based flood control operations at Folsom Reservoir.

Response to Comment FOR-5

The Friends of the River support for a local sponsor recommendation of a subset of the restoration projects included in this report is noted. The SAFCA has indicated the agency's intent to cost share in the implementation of 3 of the 5 alternatives included in the recommended NER Plan. These alternatives include the Bushy Lake, Woodlake, and automation of the Folsom Dam temperature control shutters.

Response to Comment FOR-6

The implementation of ecosystem restoration plans is dependent upon a non-Federal sponsor's willingness to cost share in the planning and implementation, as well as be responsible for operation and maintenance. Currently, the potential non-Federal sponsor has indicated a willingness to only participate in the Bushy Lake, Woodlake, and automation of the Folsom Dam temperature control shutters restoration plans. We will continue coordination with affected agencies and include all restoration features that meet our guidelines.

Please see Response to Comment PH-25.

Response to Comment FOR-7

Comment noted. The final report contains the suggested comparative information.

Response to Comment FOR-8

The final report clarifies the flood protection and risk offered by the flood control alternatives. The text in the draft report was misleading. One measure of flood risk, "expected annual probability of exceedance," is the probability of any flood event causing flooding. For example Alternative 3, Seven-Foot Dam Raise/482-Foot Flood Pool Elevation, has an annual probability of exceedance of 0.0047 or 1-in-213 chance of flooding in any year. Another measure of risk is the "conditional probability of design non-exceedance," that is, for a given event what is the probability that the levees will hold. With Alternative 3 in place, there would be about a 64 percent chance that the 1-in-200 year event would be contained (not exceed the system's capacity). Conversely, there is a 36 percent chance that flooding would ensue from this event. Thus, the Corps' risk analysis expresses the ability of a flood control system to pass a given frequency flood as a probability due to uncertainties about the flood control system and the size of the flood. To characterize Alternative 3 as designed to contain the 1-in-200-year flood is incorrect.

The American River historic flood record is limited to less than 200 years. Thus, based on historic record there is uncertainty on the magnitude of a flood with a 1-in-200 annual frequency, as is the case with any event we do not frequently observe. That we have no historic record of what we determine is a 1-in-200 event does not mean that it will not happen or that we should not work to protect ourselves against its occurrence. A major American River flood would truly be catastrophic to the Sacramento region. This could be reasonably used to justify protection against a flood greater than any that have been observed in the last 200 years. To clarify with- and without-project flood risk, the final report provides information on historic flows on the American River. Hydrology based on paleo-flood or geomorphologic data is provided for information purposes (not used to establish flow frequency). Paleo-hydrology is in a pioneering phase and is considered inconclusive, with its own uncertainties.

Response to Comment FOR-9

Comment noted. Folsom Dam operators exercised what they believed to be appropriate diligence in responding to the record flood of 1986. In hindsight, their decision during the early stages of the flood to maintain non-damaging releases in the range of 20,000 cfs, even as inflows to the reservoir exceeded these outflows, constrained their options in the later stages of the flood when the decision was made to increase releases to 130,000 cfs.

Response to Comment FOR-10

Section 566 of WRDA 1999 specifically stated "…LIMITATIONS. The study of the Folsom Dam and Reservoir undertaken under paragraph (1) shall assume that there is to be no increase in conservation storage at the Folsom Reservoir…". Because of this specific guidance in the Congressional authorization, the study is not investigating water supply.

For information and full disclosure purposes, the Final Report includes a discussion on opportunities for water storage presented by each alternative. Potential water supply benefits, additional engineering work, and associated costs and impacts are discussed. The recommended

plan includes Alternative 3, the seven-foot Folsom Dam raise. This raise is for flood control only; if the raise were to include water storage, additional studies, construction and mitigation work would be required.

Please see Response to Comment DWYER-8.

November 5, 2001

Ms. Veronica Petrovsky
U.S. Army Corps of Engineers
Sacramento District
1325 J Street, 13th Floor
Sacramento CA 95814

SENT VIA FAX TO (916) 557-5138

Re: Comments on
American River Watershed, California
Long Term Study
Draft Supplemental Plan Formulation Report/EIS/EIR

Dear Ms. Petrovsky:

Enclosed are PARC's comments on the Draft EIR referenced above. These comments were prepared and ready to submit prior to the October 29, 2001, deadline; through inadvertence they were not submitted at that time.

If possible please include PARC's comments in the official record of comments on the Draft Plan; if that is not possible we would still appreciate it being noted that PARC is in support on Alternative 3. For years our organization has followed and participated in efforts to achieve greater flood protection for Sacramento. We want to make sure our voice is added to the many others who see this proposal as a practical, fiscally prudent, and environmentally sound means of obtaining a high level of flood protection for the Sacramento area.

Sincerely,

Timothy S. Woodall
President

P.O. Box 9312 • Auburn, CA 95604 • http://pweb.jps.net/~parc/

November 5, 2001

Ms. Veronica Petrovsky
U.S. Army Corps of Engineers
Sacramento District
1325 J Street, 13th Floor
Sacramento, CA 95814

SENT VIA FAX TO (916) 557-5138

Re: Comments on
American River Watershed, California
Long-Term Study
Draft Supplemental Plan Formulation Report/EIS/EIR

Dear Ms. Petrovsky:

Protect American River Canyons (PARC) offers the following comments on the Draft Long-Term Study referenced more fully above.

1) On page 12-4 in Chapter 12, the name of our organization is incorrectly listed as "Protect American Canyons." The correct name is "Protect American River Canyons". Thank you for making this correction. PARC-1

2) PARC is happy to support Alternative 3 – Seven-Foot Dam Raise/482-Foot Flood Pool Elevation. Since the early 1970's, the future of the American River canyons behind the proposed Auburn dam has been our focus. We believe these life sustaining lands and river segments should stay as they are and not be killed by what we perceive as an unnecessary dam. Our goal has always been one of helping the Sacramento area reach a high level of flood protection without building a dam at Auburn. We believe Alternative 3 achieves that goal. PARC-2

Alternative 3 is a winning solution as it resolves the concerns of almost all stakeholders. The Sacramento area achieves the high level of flood protection it has been seeking. The dam safety deficiency at Folsom Dam is fixed. Appropriate environmental mitigation measures will be performed as part of the project. Last but not least, the American River canyons have one less potential threat to their destruction.

P.O. Box 9312 • Auburn, CA 95604 • http://pweb.jps.net/~parc/

Protect American River Canyons is dedicated to the protection and conservation of the natural, recreational, cultural, and historical resources of the North and Middle Forks of the American River and its canyons for all to care for and enjoy.

3) PARC is also happy to support the National Environmental Restoration Plan. The four environmental restoration sites restore fish and wildlife habitat along the Lower American River, and mechanizing the Folsom Dam water temperature control shutters helps improve fisheries resources downstream of Folsom Dam. These restoration efforts will help repair some of the environmental damage caused when Folsom Dam and the levee system were built. PARC-3

Taken together, Alternative 3 and the National Environmental Restoration Plan form a winning combination.

Sincerely,

Tim Woodall
President

12.4.2 PARC – Protect American River Canyons, Timothy S. Woodall (November 5, 2001)

Response to Comment PARC-1

Under Section 12.5, "Special Interests Groups," the name *Protect American Canyons* has been changed to *Protect American River Canyons*.

Response to Comment PARC-2

The Corps recognizes the Protect American River Canyons' (PARC) support for Alternative 3.

Response to Comment PARC-3

The Corps recognizes the PARC's support for the National Environmental Restoration Plan.